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Forest Insect Laboratory,
445 U. S. Court House,
Portland, Oregon,
October 20, 1937.

Mr. M. J. Forsell,
1915 Miller Street,
Seattle, Washington.

Dear Mr. Forsell:

Your request for information concerning the biological control of satin moth has been referred to this office. To supplement the following brief comments, please refer to Mr. R. T. Webber's report, "A report on the status of Stilpontia salicis and its introduced parasites in the State of Washington".

In 1935 Mr. R. T. Webber made a thorough study of the status of the satin moth, Stilpontia salicis, and its parasites in the Pacific Northwest. Since that time no intensive scouting has been done.

During the 1937 season notes of a general nature concerning the amount of infestation in certain areas were taken while host material was being collected for the rearing of a native tachinid parasite. It was evident, as you have noted, that the satin moth is not causing much defoliation in those communities where most of the Lombardy and silver poplars were stripped in the early '30s. Isolated spots of heavy defoliation did occur in 1937 even in the older infestation centers; for example, some trees in Olympia and Tacoma were completely stripped.

Four parasites were recovered in large numbers. Three of these, Apanteles solitarius, Meteorus versicolor, and Compsilura concinnata were introduced into the Northwest, while the fourth, Tachinomyia similis, is a native species that has found the satin moth a favorable host. All apparently are doing effective work in reducing the numbers of the satin moth. A. solitarius seems to disperse more rapidly than the other introduced species. It may interest you to know that A. solitarius has spread to the Willamette Valley in Oregon, where it caused a marked reduction of defoliation in at least one area.

Wilt disease and starvation were also observed to be potent factors causing reduction of satin moth this year. In two "spot" infestations in Tacoma wilt attacked the mature larvae so that very few pupated. In Olympia two large lombardy poplars isolated from other poplars were completely defoliated before the satin moth larvae reached maturity. At another point in Olympia two Lombardy poplars were stripped of foliage for the first time in about five years. Larvae at this second place were very heavily parasitized by Compsilura and Tachinomyia.

Apparently, the satin moth is rapidly assuming the role of a native pest. That is, parasites and other controlling factors can be expected to hold it in check most of the time although it will probably increase to epidemic proportions from time to time over a period of years. In other words, biological control has been established and only by the introduction of some more effective parasite or parasites could any better results be expected.

Very truly yours,

F. P. Keen,
Entomologist,
Forest Insect Investigations.

By R. L. Furniss ec
Assistant Entomologist.

rlf/ec
cc: Mr. Keylop
" Dr. Craighead } D.C. Office